



(11) Publication number: **0 332 052 A3**

(12) **EUROPEAN PATENT APPLICATION**

(21) Application number: **89103674.1**

(51) Int. Cl.⁵: **C08K 5/32, C08L 21/00**

(22) Date of filing: **02.03.89**

(30) Priority: **07.03.88 JP 54480/88**
05.01.89 JP 1080/89

(43) Date of publication of application:
13.09.89 Bulletin 89/37

(64) Designated Contracting States:
DE FR GB IT

(88) Date of deferred publication of the search report:
16.01.91 Bulletin 91/03

(71) Applicant: **SUMITOMO CHEMICAL COMPANY, LIMITED**
Kitahama 4-chome 5-33
Chuo-ku Osaka 541(JP)

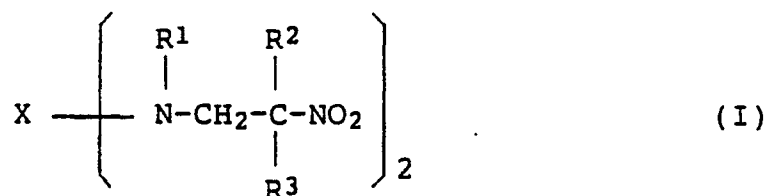
(72) Inventor: **Kurimoto, Isao**
32-1-8-108, Sonehigashinocho-2-chome

Toyonaka-shi(JP)
 Inventor: **Yamaguchi, Tetsuo**
30-333, Korigaoka-8-chome
Hirakata-shi(JP)
 Inventor: **Inui, Naoki**
1598, Tsutsuicho
Yamatokoriyama-shi(JP)
 Inventor: **Nagasaki, Hideo**
7-7, Itakano-4-chome
Higashiyodogawa-ku Osaka(JP)
 Inventor: **Yachigo, Shinichi**
10-5-406, Sonehigashinocho-2-chome
Toyonaka-shi(JP)

(74) Representative: **Henkel, Feiler, Hänzel & Partner**
Möhlstrasse 37
D-8000 München 80(DE)

(54) **Method for improving rubber vibration isolator properties.**

(57) A rubber vibration isolator lowered in the dynamic-to-static modulus ratio and improved in the durability is obtained by blending a natural rubber and/or a synthetic rubber with a filler and a dinitrodiamine compound represented by the formula of



wherein X is a divalent aliphatic, alicyclic or aromatic group which may contain halogen or oxygen in the group, R¹ is hydrogen, an aliphatic group, an alicyclic group or an aromatic group, with the proviso that two nitrogen atoms linking through X may further link through R¹ when both X and R¹ are the aliphatic groups, and R² and R³ independently of one another are each hydrogen or an alkyl of 1 to 12 carbon atoms, with the proviso that R² and R³ may conjointly form a ring.



European
Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 89 10 3674

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X,D	EP-A-0 253 365 (SUMITOMO) * Claim 1 * -----	1-15	C 08 K 5/32 C 08 L 21/00
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			C 08 K C 08 L
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of search 09 November 90	Examiner VAN HUMBEECK F.W.C.
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document			